

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

CIVIL ACTION NO. 13-10628

EXERGEN CORPORATION

v.

KAZ USA, INC.

MEMORANDUM AND ORDER ON KAZ'S MOTION
FOR SUMMARY JUDGMENT OF NONINFRINGEMENT

September 3, 2015

STEARNS, D.J.

Plaintiff Exergen Corporation accuses defendant Kaz USA, Inc., of infringing 17 claims of U.S. Patent Nos. 6,292,685 (the '685 patent) and 7,787,938 (the '938 patent). As described in previous iterations of summary judgment, the '685 and '938 patents are both entitled "Temporal Artery Temperature Detector." The patents disclose methods and apparatuses for measuring human body temperature by detecting the temperature at the forehead over the temporal artery and computing internal body temperature using an arterial heat balance approach. Kaz contends that the accused products – the Vicks Forehead Thermometer V977 and the Braun Forehead Thermometer FHT-1000¹ – do not meet all of the limitations of the asserted

¹ The parties agree that the two accused thermometers are technological twins for purposes of the infringement analysis.

claims. Kaz also maintains that it is not liable for indirect infringement because it relied in good faith on its counsel's opinions of noninfringement.²

Direct Infringement

"To support a summary judgment of noninfringement it must be shown that, on the correct claim construction, no reasonable jury could have found infringement on the undisputed facts or when all reasonable factual inferences are drawn in favor of the patentee." *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1353 (Fed. Cir. 2001). To establish infringement, all of the elements of the claim must be present in the accused product or method, either literally or by equivalents. See *id.* at 1353-1354. Under the doctrine of equivalents,

"a product or process that does not literally infringe . . . the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21[] (1997). A patent is infringed under the doctrine of equivalents if any difference between a given limitation in the asserted claim and the corresponding element in the accused device is insubstantial. *Voda v. Cordis Corp.*, 536 F.3d 1311, 1326 (Fed. Cir. 2008). Alternatively, "an element in the accused device is equivalent to a claim limitation if it

² This is the last of the parties' six summary judgment motions. The court previously issued orders and memoranda on the parties' cross summary judgment motions on Kaz's license defense, on Exergen's motion for summary judgment of no inequitable conduct, and on Kaz's motions for summary judgment of invalidity because of obviousness, and summary judgment of no willful infringement.

performs substantially the same function in substantially the same way to obtain substantially the same result.” *Id.* (citation omitted). Regardless how the equivalence test is articulated, “the doctrine of equivalents must be applied to individual limitations of the claim, not to the invention as a whole.” *Warner-Jenkinson*, 520 U.S. at 29[.]

Mirror Worlds, LLC v. Apple Inc., 692 F.3d 1351, 1357 (Fed. Cir. 2012).

“detecting human body temperature”

Claims 7, 14, and 17 of the ’685 patent, and claims 17, 24, 27, 29, 33, 37, 54, 56, 60, and 66 of the ’938 patent recite a method of “detecting human body temperature.” Claim 49 of the ’938 patent discloses a “body temperature detector.” Kaz contends that because the parties agreed to construe “human body temperature” as the “core temperature of the human being,” and the accused products determine an oral equivalent temperature, they do not meet this claim limitation and therefore do not infringe.

Exergen counters, and the court agrees, that “detecting human body temperature,” which appears only in the claims’ preamble, is not limiting for purposes of an infringement analysis.³ “Whether to treat a preamble term as a claim limitation is ‘determined on the facts of each case in light of the claim

³ Relying on expert opinion, Exergen also maintains that while the accused thermometers *determine* an oral equivalent temperature, they nonetheless *detect* human body temperature because the core temperature is the source of all temperature measurements on the body, and the oral temperature is dependent on the core temperature.

as a whole and the invention described in the patent.” *Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1358 (Fed. Cir. 2010), quoting *Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 831 (Fed. Cir. 2003).

“Generally . . . the preamble does not limit the claims.” *Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1346 (Fed. Cir. 2002). Nonetheless, the preamble may be construed as limiting “if it recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002), quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999). A preamble is not regarded as limiting, however, “when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.” *Catalina*, 289 F.3d at 809. If the preamble “is reasonably susceptible to being construed to be merely duplicative of the limitations in the body of the claim (and was not clearly added to overcome a [prior art] rejection), we do not construe it to be a separate limitation.” *Symantec Corp. v. Computer Assocs. Int’l, Inc.*, 522 F.3d 1279, 1288-89 (Fed. Cir. 2008). We have held that the preamble has no separate limiting effect if, for example, “the preamble merely gives a descriptive name to the set of limitations in the body of the claim that completely set forth the invention.”

Am. Med., 618 F.3d at 1358-1359.

The facts of this case lend themselves to the conclusion that “detecting human body temperature” states the intended purpose of the claims and is not itself a substantive claim limitation. Although Kaz seizes on the fact that Exergen agreed to a construction of the phrase during the *Markman* proceeding, construing a term is not determinative of a claim limitation. The patents-in-suit do not teach direct measurement of temperature at a person’s

core. Rather, they disclose methods of measuring temperature at the forehead, and then computing or otherwise providing “a body temperature approximation.” *See, e.g.*, ’938 patent claim 54. The steps of the claims constitute integral methods that do not depend on the preamble. Each asserted claim that recites language from the preamble also incorporates an explicit step for computing or determining an internal body temperature or a body temperature approximation. Thus, the preamble language “is reasonably susceptible to being construed to be merely duplicative of the limitations in the body of the claim.”⁴ *Am. Med.*, 618 F.3d at 1359. Finally, the preamble language was not “clearly added to overcome a [prior art] rejection.” *Id.* The preamble phrase appeared in the original claims of the patent applications and Exergen did not rely on the preamble language to distinguish prior art during patent prosecution.

“laterally scanning”

Claims 7, 14, and 17 of the ’685 patent recite “laterally scanning” or a “lateral scan” across a forehead or the temporal artery. The court construed

⁴ Kaz’s argument that the claims require an exact detection of core temperature also conflicts with the claim step to “provides a body temperature approximation” and would render the claims incapable of being meaningfully practiced. *See Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1363 (Fed. Cir. 2008) (where alternative plausible readings are possible, the court should interpret claim language in light of the intrinsic evidence and according to the patentee’s intentions).

the terms collectively to mean “moving a scanning device in a generally horizontal direction relative to the human body.” Kaz argues that the devices do not instruct scanning in “a generally horizontal direction” because users are directed to scan “diagonally down[ward]” along the temple area (Braun manual), and in a curved pattern from above the eyebrow down to the tail of the eyebrow (Vicks and Braun manual diagrams) and back (Braun manual diagram). Recognizing that the diagrams attempt to represent in two dimensions what is a three-dimensional curvature of the forehead, Kaz’s evidence raises a question of fact to be resolved at trial. Although the diagrams’ scan lines appear diagonal/curved, they are also depicted as parallel to the subject’s eyebrow. A reasonable jury could conclude that a scan pattern on a parallel to the eyebrow is “generally horizontal.”⁵

⁵ As an alternative to literal infringement, Exergen also asserts infringement by equivalents, contending that a diagonal scan is the equivalent to a lateral scan. Kaz argues that because Exergen added the lateral scan limitations during prosecution to distinguish prior art, it cannot now assert infringement by equivalents. Under the doctrine of prosecution history estoppel, where a narrowing amendment is made for a “substantial reason relating to patentability,” “all territory between the original claim limitation and the amended claim limitation” is presumed surrendered. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1367 (Fed. Cir. 2003). A patentee may overcome this presumption if the patentee can demonstrate that the amendment only had “a tangential relation to,” or “was peripheral, or not directly relevant, to the alleged equivalent.” *Id.* at 1369. To fulfill the public notice function of patents, this determination is to be made based on “the prosecution history record without the introduction of additional evidence, except, when

“across a forehead”

Claim 7 of the ’685 patent, which depends on claim 1, includes the limitation of scanning a temperature detector “across a forehead.” The parties agreed to construe the term to mean “from one side of the forehead to the other.” It is undisputed that the accused devices instruct a user to scan

necessary, testimony from those skilled in the art as to the interpretation of that record.” *Id.* at 1370.

Exergen does not dispute that the lateral scan limitation was introduced to overcome the examiner’s rejection over prior art. However, Exergen maintains, and the court agrees, that the amendment is peripheral to the alleged equivalent. The instant dispute concerns how horizontal a scan would have to be to be considered “lateral.” The examiner’s rejection, by contrast, concerned whether the claims would encompass scanning *in situ*. The prior art disclosed sensing a person’s temperature using a measuring device (but not scanning while moving the scanning device). The examiner noted that “scan” is broadly defined as “to examine systematically with a sensing device” and “doesn’t necessary [sic] involve the scanning of a device.” Nov. 14, 2000 Office Action, Underwood Decl. Ex. MMM at 5. In response, Exergen agreed that “scan” “does not necessarily require movement of the device,” and added “with a lateral scan across the temporal artery” to issued claims 14 and 17. Apr. 10, 2011 Amendment, Underwood Decl. Ex. NNN at 5, i. However, Exergen argued that issued claim 7, which required “scanning across a forehead,” already indicated lateral movement because of the “across a forehead” limitation. *Id.* at 5. The examiner added (with Exergen’s agreement) the modifier “lateral” to clarify the “scanning” requirement of claim 7 and allowed the claims. Because the narrowing amendment concerned movement of the scanning device and not the direction of the movement, the amendment was “peripheral, or not directly relevant, to the alleged equivalent.”

across only one side of the forehead. Exergen nonetheless asserts infringement by equivalents.⁶

Kaz contends that an equivalence between scanning a portion of the forehead to “across a forehead” would impermissibly vitiate the claim limitation. An alleged equivalent “vitiates” a claim element if it “render[s] the pertinent limitation meaningless,” *Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1359 (Fed. Cir. 2005), or would “effectively eliminate that element in its entirety.” *Warner-Jenkinson*, 520 U.S. at 29.

[C]ourts properly refuse to apply the doctrine of equivalents “where the accused device contain[s] the antithesis of the claimed structure.” *Planet Bingo, LLC v. GameTech Intern., Inc.*, 472 F.3d 1338, 1345 (Fed.Cir.2006). In such a case, application of the doctrine of equivalents would “vitiate” a claim element. *Warner-Jenkinson*, 520 U.S. at 39 n. 8 [].

“Vitiation” is not an exception to the doctrine of equivalents, but instead a legal determination that “the evidence is such that no reasonable jury could determine two elements to be equivalent.” *Id.* The proper inquiry for the court is to apply the doctrine of equivalents, asking whether an asserted equivalent represents an “insubstantial difference” from the claimed element, or “whether the substitute element matches the function, way, and result of the claimed element.” *Id.* at 40 []. If no reasonable jury could find equivalence, then the court must grant summary judgment of no infringement under the doctrine of equivalents.

⁶ In prior litigation involving the '685 patent, the Federal Circuit found that scanning in an oval pattern over the temple region did not literally infringe the “across a forehead” limitation. *Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1323 (Fed. Cir. 2009). In that case, Exergen waived the doctrine of equivalents argument prior to trial. *Id.*

Deere & Co. v. Bush Hog, LLC, 703 F.3d 1349, 1356 (Fed. Cir. 2012).

Here, a reasonable jury could find that there is only an “insubstantial difference” between scanning across one side of the forehead and scanning across the entire forehead. Permitting this equivalence neither makes the limitation “meaningless” nor does it “eliminate [the limitation] in its entirety.” A user is still required to scan the device across the forehead, and it is for the jury to decide whether scanning across a portion of the forehead is equivalent to scanning across the entire forehead.

“a peak temperature reading”

Claim 7 of the '685 patent and claims 60 and 66 of the '938 patent require providing “a peaking temperature reading” from the plural readings taken during a scan. The parties did not request that the court construe the term, and the court sees no reason not to accord the term its common meaning of “the highest temperature reading,” as the patents explain that the highest temperature reading “indicates the temporal artery.” '685 patent, col. 4, ll. 9-13.

Kaz contends that the accused thermometers do not meet the “peak temperature reading” limitation because they do not utilize the highest reading detected during a scan. Rather, Kaz explains that the accused devices are programmed to take fifty separate readings in the course of a

scan, and after computing the running average of the four most recent readings, uses the highest four-reading average to determine the ultimate temperature. By virtue of using an average over four readings, Kaz reasons that the accused thermometers necessarily do not utilize the highest detected temperature of a scan.

Exergen disputes this argument in two respects. First, Exergen relies on the reports of its expert witness, Dr. John Collins. Dr. Collins performed empirical testing of the accused devices and concluded that the accused thermometers did report and use the peak temperature detected. *See* Collins Opening Report ¶ 104 (“A conclusion can be made from the data that both the Vicks and the Braun thermometers are scanning thermometers that report the peak temperature to which they are exposed.”); Collins Rebuttal Report ¶ 36 (“[E]xperimental results show that the Vicks and Braun devices use peak temperature.”).

Second, Exergen challenges the authenticity and admissibility of the evidence Kaz relies upon to explain the workings of the accused devices. While Kaz sells the thermometers in the United States, they are manufactured by Microlife, a Taiwan-based company. Kaz claims that it does not possess nor have access to the source code of the software Microlife embeds in the accused devices. Neither Exergen nor Kaz obtained the source

code from Microlife in this litigation. Rather, Kaz intends to rely on the testimony of James Gorsich, Kaz's Engineering and Technical Manager for Medical Devices, who avers that he has obtained personal knowledge of the working of the thermometers after "a careful review back and forth with Microlife to ensure that [he] had a thorough understanding of how the device worked." Reply at 7, quoting Gorsich Dep. Tr. at 104-105.

Exergen challenges Gorsich's testimony as inadmissible hearsay because Gorsich (who is not designated as an expert witness) based his functional knowledge on out-of-court statements made by Microlife employees. In response to the argument, Kaz submitted the declarations of two Mircolife employees – Chia-Chen Ho and Gerhard Frick – to authenticate and establish the admissibility of Microlife documents, including process flow-charts, which underlie Gorsich's testimony. Exergen, for its part, then moved to strike the two Microlife declarations and their exhibits as hearsay. Exergen also objects because the Microlife employees were not disclosed as Kaz witnesses.⁷

It is unnecessary for the court to determine now the admissibility of Kaz's evidence to decide the motion for summary judgment. At this juncture,

⁷ Exergen moves, in the alternative, for leave to depose Ho and Frick.

the court must draw all reasonable inferences in Exergen's favor as the nonmoving party.⁸ See Fed. R. Civ. P. 56. In doing so, the court finds that Dr. Collins' evidence, if credited by the jury, could warrant a conclusion that the devices meet the "peak temperature" limitation, either literally or under the doctrine of equivalents.⁹ See, e.g., *In re Gabapentin Patent Litig.*, 503 F.3d 1254, 1259-1261 (Fed. Cir. 2007) (conflicting expert opinions sufficient to defeat summary judgment). That said, the court will deny Exergen's motion to strike. The court will give the parties (if either so chooses) the opportunity to take the depositions of Cho and Frick for the limited purpose of authenticating the Microlife documents on which Gorsich relies. The court will decide the admissibility question by way of an appropriate motion in limine prior to trial.

⁸ Kaz's own expert, Dr. Frederick Brown, disagrees with the conclusion to be drawn from Dr. Collins's testing. The difference in opinion, however, is a matter for the jury to resolve.

⁹ Kaz once more hoists the shield of prosecution history estoppel as a putative bar Exergen's theory of equivalents. However, the prosecution history reveals that the "peak temperature" limitation was present in the original claims. Exergen added the "plural readings" limitation to clarify that the claim limitation excluded the possibility that "peak temperature" referred to any temperature taken at any instant. See Nov. 14, 2000 Office Action at 2, 5; Apr. 10, 2011 Amendment at 5-6, i. Exergen also clarified that "peak" referred to a maximum and not a minimum temperature, see Apr. 10, 2011 Amendment at 6, a distinction not at issue in this case.

Indirect Infringement

With the exception of claim 49 of the '938 patent, all of the asserted claims are method claims covering an end consumer's use of the accused devices. With respect to these methods, Exergen charges Kaz with induced and contributory infringement. *See* 35 U.S.C. § 271(b) and (c). Both forms of indirect infringement require the alleged infringer to have knowledge of the infringement and to possess a specific intent to induce or contribute to the infringing conduct.

To establish [induced infringement] liability . . . a patent holder must prove that once the defendants knew of the patent, they "actively and *knowingly* aid[ed] and abett[ed] another's direct infringement." *Water Technologies Corp. v. Calco, Ltd.*, 850 F.2d 660, 668 (Fed. Cir. 1988) (emphasis in original). However, "knowledge of the acts alleged to constitute infringement" is not enough. *Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1363 (Fed. Cir. 2003) (citation omitted). The "mere knowledge of possible infringement by others does not amount to inducement; specific intent and action to induce infringement must be proven." *Id.* at 1364 [].

DSU Med. Corp. v. JMS Co., 471 F.3d 1293, 1305 (Fed. Cir. 2006).

Contributory infringement occurs if a party sells or offers to sell, a material or apparatus for use in practicing a patented process, and that "material or apparatus" is material to practicing the invention, has no substantial non-infringing uses, and is *known by the party* "to be especially made or especially adapted for use in an infringement of such patent." 35 U.S.C. § 271(c); *see also Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1312 (Fed. Cir. 2005).

In re Bill of Lading Transmission & Processing Sys. Patent Litig., 681 F.3d 1323, 1337 (Fed. Cir. 2012) (emphasis added).

Kaz contends that Exergen cannot shoulder its burden of establishing knowledge and specific intent because Kaz relied in good faith on its competent attorney's opinions that the accused devices do not infringe. Kaz obtained these opinions regarding the patents-in-suit in 2005, 2009, and in 2012. Exergen challenges the competence of these opinions because: (1) Kaz did not sell a forehead thermometer in 2005; (2) the 2009 opinion relied on incorrect technical information regarding the accused thermometers; and (3) the 2012 opinion addressed invalidity, which is no longer a basis to “negate the scienter required under § 271(b).” *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1928 (2015). Exergen also points out that Kaz’s counsel’s opinions did not discuss infringement by equivalents, a theory that Exergen asserts in this litigation. Because good faith is ordinarily a question of fact, see *KangaROOS U.S.A., Inc. v. Caldor, Inc.*, 778 F.2d 1571, 1573 (Fed. Cir. 1985), and Exergen has sufficiently identified a dispute over the competence and reliability of Kaz’s counsel’s opinions, the court will submit the issue to the jury.

ORDER

For the foregoing reasons, Kaz's motion for summary judgment of noninfringement is DENIED. Exergen's motion to strike the Ho and Frick declarations is DENIED. The parties will have at the election of either until October 2, 2015, to depose Ho and Frick for the limited purpose of authenticating and establishing the admissibility of the Microlife exhibits. The Clerk will schedule this matter for a jury trial commencing at 9 a.m., January 11, 2016, in Courtroom 21 of the Moakley Federal Courthouse.

SO ORDERED.

/s/ Richard G. Stearns

UNITED STATES DISTRICT JUDGE